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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/612,877

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John C. Jones

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7590

05/30/2008

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EXAMINER

NGUYEN, THANH NHAN P

ART UNIT

PAPER NUMBER

2871

MAIL DATE

DELIVERY MODE

05/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/612,877	Applicant(s) JONES ET AL.	
	Examiner THANH-NHAN P. NGUYEN	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 9-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation (in claim 26) "wherein said electrodes defining the pixels are not substantially aligned with edges of a repeat unit" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-8, 25 and 26 (especially, claim 1 - emphasis added) are objected to because of the following informalities:

In light of specification, at least in paragraphs 0024 and 0027, it seems the definition for pixel and/or pixel areas and electrodes are not very common as conventional, such as (in par. 0024) "However the term pixel area should not be seen as being limited to mean an area corresponding to electrodes. Registration of various different electro-optical features may be needed in a light modulating device, for instance registration with colour filters or compensation plates may be required. In this case the relevant pixel area may be the area corresponding to a particular colour filter say and the term should be read accordingly"; (in par. 0027) "It should be noted that the term electrodes could mean overlapping electrodes such as row and column electrodes (or any other configuration) or could mean thin film transistor type addressing electrodes or indeed any means for supplying a voltage pulse to the light modulating device."

The claims could be clearer if the pixel and/or pixel areas and electrodes are further defined as in specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8, 25 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Limitations (1) “wherein each switching region is arranged to impart one of at least two predetermined electro-optic characteristics to said light modulating medium”, (2) wherein each pixel contain areas of each electro-optic characteristic in substantially the same relative proportion as any other pixel” make the claims unclear. Through the specification, there is no explanation about electro-optic characteristic explicitly. Paragraphs 0024, 0027 does mention about the electro-optic characteristic, but Examiner still doesn’t get what the electro-optic characteristic really means. What kind of component/element is the electro-optic characteristic and what is its function?

For the purpose of the examination, any claims that included “the electro-optic characteristic” or “characteristic” will be interpreted as without this/these limitations.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-8 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al (WO 01/40853A1).

Jones et al disclose (at least in figs. 5a - 8) a repeated pattern layer (21) for a pixellated light modulating device comprising:

Claim 1:

- a cell having a light modulating medium (2) and a plurality of electrodes (6, 7) defining pixels

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- a plurality of switching regions (saw-tooth portions of '21' – emphasis added) within each repeat unit, wherein the repeat unit length is less than half the length of the minimum pixel dimension

Claim 2:

- wherein the switching regions are arranged in a repeat unit as a two dimensional grid (at least in figs. 7a, 8)

Claim 3:

- the grid is arranged such that the switching regions are varied in both of said two dimensions (at least in figs. 7a, 8)

Claim 5:

- wherein the grid may be formed by a regular array of switching regions arranged in rows and columns and wherein each row and each column contains one or more of switching regions

Claim 6:

- wherein the relative numbers of switching regions in each row and column are weighted with respect to each other

Claim 7:

- wherein each row and column contains one switching region

Claim 8:

- wherein the grid has a repeat unit that is rectangular

Claim 25:

- wherein the repeat unit length is less than a third of the length of the minimum pixel dimension

Response to Arguments

Applicant's arguments with respect to claims 1-8, 25 and 26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 7,053,975.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

-- May 22, 2008
(Nancy) Thanh-Nhan P. Nguyen
Examiner
Art Unit 2871

/David Nelms/

Supervisory Patent Examiner, Art Unit 2871